

JUN' 0 9 2003 TECH CENTER 1600/2900

Patent

Attorney Docket No. 05725.0785-00

Application No.: 09/692,716

Group Art Unit: 161

Examiner: G. Yu

Customer No. 22,852

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE SEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Sandrine DECOSTER et al.

Application No.: 09/692,716

Filed: October 20, 2000

For: COSMETIC COMPOSITIONS

COMPRISING AT LEAST ONE SILICONE COPOLYMER IN AQUEOUS EMULSION AND AT LEAST ONE THICKENER, AND

USES THEREOF

Mail Stop Appeal Brief- Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF UNDER 37 C.F.R. § 1.192

This is an appeal to the Board of Patent Appeals and Interferences ("the Board") from the Office Action dated July 16, 2002, finally rejecting claims 1-104, in the above-referenced patent application. The appealed claims, as rejected, are set forth in the attached Appendix.

In support of the Notice of Appeal filed January 15, 2003, and pursuant to 37 C.F.R. § 1.192, Appellants present in triplicate this brief and enclose herewith a check including the fee of \$320 required under 37 C.F.R. § 1.17(c). A petition

00000063 09692716

320.00 OP

PRINT & TRADEMAN

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLL

1300 I Street, NW Washington, DC 20005 202.408.4000 Fax 202.408.4400 www.finnegan.com 06/03/2003 JADD01

02 FC:1402

for a three month extension of time and accompanying fee is also enclosed. If any additional fees are required or if the enclosed payment is insufficient,

Appellants request that the required fees be charged to Deposit Account No. 06-0916.

I. Real Party in Interest

L'Oréal, S.A. is the assignee of record.

II. Related Appeals and Interferences

Appellants' undersigned legal representative knows of no other appeals or interferences, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

Claims 1-104 are pending in this application. No claim has been allowed.

IV. Status of Amendments

No amendments to the claims have been filed subsequent to the Final Office Action dated July 16, 2002.

V. Summary of Invention

This invention relates to novel cosmetic compositions comprising, in a cosmetically acceptable medium, at least one non-cellulose thickener and at

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

least one aqueous emulsion of at least one silicone copolymer, with a dynamic viscosity ranging from 1 x 10^6 to 100 x 10^6 cP. See attached Appendix for pending claims reciting the particular non-cellulose thickener and the particular silicone copolymer. The invention also relates to the use of at least one aqueous emulsion of at least one silicone copolymer, with a dynamic viscosity ranging from 1 x 10^6 to 100 x 10^6 cP, in , or for the manufacture of, a cosmetic composition comprising at least one non-cellulose thickener.

After considerable research, the inventors have found that by introducing an emulsion of a particular silicone copolymer into compositions, such as hair compositions, containing at least one non-cellulose thickener, it is possible to limit, or even eliminate, the at least one problem generally associated with the use of such compositions, while at the same time retaining at least one of the other advantageous cosmetic properties associated with conditioner-based compositions. Present application at p. 2.

VI. Issues

The issues presented for appeal are as follows:

- 1. Whether claims 1-18, 21, and 101-104 are patentable under 35 U.S.C. § 103(a) over DALLE (EP 0874017) in view of ZVIAK (*The Science of Hair Care*, p. 68-70 (1986)).
- 2. Whether claims 1-17, 19, 20, 22, 24, and 101-104 are patentable under 35 U.S.C. § 103(a) over DALLE (EP 0874017) in view of QUACK (U.S. Patent No. 4,237,243).

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP



- 3. Whether claims 1-19, 22, 23, 25-36, and 101-104 are patentable under 35 U.S.C. § 103(a) over DALLE (EP 0874017) in view of MOUGIN (U.S. Patent No. 6,166,093).
- 4. Whether claims 37-63 are patentable under 35 U.S.C. § 103(a) over DALLE (EP 0874017) in view of MOUGIN (U.S. Patent No. 6,166,093) in further view of RESTLE (U.S. Patent No. 6,039,936).
- 5. Whether claims 64-100 are patentable under 35 U.S.C. § 103(a) over DALLE (EP 0874017) in view of MOUGIN (U.S. Patent No. 6,166,093) in further view of DECOSTER (U.S. Patent No. 6,150,311).

VII. Grouping of Claims

Each claim of this patent application is separately patentable, and upon issuance of a patent will be entitled to a separate presumption of validity under 35 U.S.C. § 282. For convenience in handling this appeal, however, the claims will be grouped into five groups:

- 1. Regarding the rejection under 35 U.S.C. § 103(a) over DALLE in view of ZVIAK, claims 1-18, 21, and 101-104 stand or fall together.
- 2. Regarding the rejection under 35 U.S.C. § 103(a) over DALLE in view of QUACK, claims 1-17, 19, 20, 22, 24, and 101-104 stand or fall together.
- 3. Regarding the rejection under 35 U.S.C. § 103(a) over DALLE in view of MOUGIN, claims 1-19, 22, 23, 25-36, and 101-104 stand or fall together.
- 4. Regarding the rejection under 35 U.S.C. § 103(a) over DALLE in view of MOUGIN in further view of RESTLE, claims 37-63 stand or fall together.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP



5. Regarding the rejection under 35 U.S.C. § 103(a) over DALLE in view of MOUGIN in further view of DECOSTER, claims 64-100 stand or fall together.

VIII. Argument

A. Claims 1-18, 21, and 101-104 Are Patentable Under 35 U.S.C. § 103(a) Over DALLE in View of ZVIAK.

The Examiner rejects claims 1-18, 21, and 101-104 as unpatentable under 35 U.S.C. § 103(a) over DALLE (EP 0874017) in view of ZVIAK (*The Science of Hair Care*, p. 68-70 (1986)). This rejection should be withdrawn at least because the Examiner has failed to establish a prima facie case of obviousness by pointing to any clear and particular motivation to combine the teachings of DALLE with those of ZVIAK.

1. The Examiner's Position

The Examiner states that "Dalle et al. teach [sic] a method of making silicone in water emulsions for cosmetic products, wherein the silicone is prepared by blending at least one polysiloxane identical to formula (I) in instant claim 1...." Office Action dated Oct. 23, 2001, p. 2. The Examiner also notes that the particle size of the silicone copolymer in DALLE is "in the range of 0.3-100 μm, which meets claims 11-12." *Id.* Furthermore, the Examiner states that DALLE teaches "9 parts by weight of polysiloxane...which meets claims 13, 15, 16 [sic] in the instant application." *Id.* After noting that DALLE teaches that the

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

300 I Street, NW ington, DC 20005 02.408.4000 02.408.4400 nnegan.com

invention is "applicable to cosmetic products for hair, such as hair shampoo and conditioner, and cosmetics such as mascara," the Examiner admits that DALLE "lacks a specific mention of using non-cellulose thickener." *Id.* To remedy this deficiency, the Examiner cites ZVIAK, which, according to the Examiner, teaches thickeners for shampoo formulations, including natural gums, karaya, and carboxyvinyl polymers of the Carbopol type, thereby meeting claims 17, 18, and 21. Office Action dated Oct. 23, 2001, p. 3. The Examiner then summarily concludes that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition in Dalle et al. by adding conventional non-cellulose thickeners in Zviak because of the expectation to have produced hair car compositions with desired viscosity." *Id.*

2. Appellants' Position

Appellants submit the Examiner has failed to establish a prima facie case of obviousness at least because she has failed to point to any clear and particular motivation to combine the teachings of DALLE with those of ZVIAK.

Three basic factual inquiries must be made by the Examiner in order to determine the obviousness or non-obviousness of claims of a patent application under 35 U.S.C. § 103. See Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). In order to carry the initial burden of establishing a prima facie case of obviousness that satisfies the *Graham* standard, the Examiner must at least show that there exists some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLL



skill in the art, to modify the references or to combine reference teachings in the manner proposed. See M.P.E.P. § 2143. Furthermore, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicants' disclosure. See In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); see also, In re Dembiczak, 50 USPQ2d 1614 (Fed. Cir. 1999) (requiring a "clear and particular" suggestion to combine prior art references).

In the present case, there is no clear and particular motivation to combine the teachings of the cited documents. The Examiner alleges that the incentive for combining DALLE with ZVIAK lies in the expectation to have produced compositions with desired viscosity. (Office Action dated May 9, 2001, page 4, lines 14-17; page 5, lines 10-13; page 6, lines 15-18.) There is, however, not even a remote suggestion in DALLE that one skilled in the art would desire to make adjustments to DALLE's method to alter viscosity, nor has the Examiner alleged any such suggestion exists in DALLE. In fact, the opposite should be extrapolated from the reference because the polymers used in DALLE recite specific viscosity limitations themselves. (DALLE, p. 3, lines 18-19)

The Examiner must make particular finding as to the reason the skilled artisan, with no knowledge of the claimed invention, would have *selected* the components of the claimed invention *for combination* in the manner claimed.

See In re Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000). Additionally, the Examiner must articulate a satisfactory explanation for the rejection, including a "rational connection between the facts found an the choice made." In re Lee, 277

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

F.3d 1338, 1342 (Fed. Cir. 2002). The Examiner, relying on the teaching in DALLE of "conventional ingredients" and general utility in cosmetic applications, has alleged that it would have been obvious to add any of the non-cellulose thickeners of ZVIAK to DALLE's compositions. (Office Action dated May 9, 2001, p. 4, lines 8-10). But the term "conventional ingredients" is too general a teaching to specifically import thickeners, let alone non-cellulose thickeners into DALLE.

The Federal Circuit reaffirmed the Examiner's high burden to establish a prima facie case of obviousness and emphasized a requirement for specificity. In *In re Lee*, the Federal Circuit held that "[t]he factual inquiry whether to combine references must be thorough and searching. It must be based on objective evidence of record. This precedent has been reinforced in a myriad decisions, and cannot be dispensed with." 277 F.3d 1338, 1433 (Fed. Cir. 2002). Further, the Federal Circuit explained that

[t]he need for specificity pervades this authority...the examiner can satisfy the burden of showing obviousness of the combination only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.

Id. (internal citations and quotations omitted) (emphasis added).

In the present case, the Examiner has failed to point to the specific, objective teaching called for in *In re Lee*, nor do Appellants believe that any such teaching exists in the prior art relied upon by the Examiner. And the general

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

teaching of "conventional ingredients" falls well short of the specificity requirement on *In re Lee*.

Not all shampoos use the same ingredients, not all skin cosmetics use the same ingredients, and not all mascara compositions use the same ingredients. Thus the combinations proposed by the Examiner would require guesswork and serendipity to determine which thickeners would be compatible with the compositions of DALLE. This uncertainty is sufficient to render the Examiner's proposal "obvious to try" at best. "But, 'obvious to try' is not the standard." *Ecolochem, Inc. v. Southern Cal. Edison Co.*, 227 F.3d 1361, 1374, 56

U.S.P.Q.2d 1065, 1075 (Fed. Cir. 2000). Therefore, the Examiner has failed to demonstrate a motivation to combine the references.

In response to Appellants' arguments that addressed the lack of a "clear and particular" reason to combine the references, the Examiner simply "respectfully disagrees for the reasons of record." See Final Office Action at page 3. The Examiner's response is improper because, "In making a final rejection, all outstanding grounds of rejection of record should be carefully reviewed, and any such grounds relied on in the final rejection should be reiterated." M.P.E.P. § 706.07. Moreover, the final ground of rejection "must also be clearly developed to such an extent that applicant my readily judge the advisability of any appeal." *Id*.

This duty has not been met because the Examiner has failed to specifically address Appellants' arguments regarding a "clear and particular" motivation and has not set forth any substantial evidence of a clear and particular

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

motivation to combine the references. Rather, the Examiner is circumventing Appellants' arguments, and the applicable law, by using the references to piece together the present invention in hindsight. Picking and choosing among isolated disclosures in the references to deprecate the claimed invention amount to improper hindsight reconstruction and is prohibited. *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

The Examiner has stated, "so long as [the Examiner's reconstruction] takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper." Office Action dated October 23, 2001, p. 5, lines 12-16 (emphasis added)(citation omitted). Simply put, to combine the references, the Examiner relies on the fact that the references teach similar applications. Thus, under this type of reasoning, any component that is also useful in, for example, shampoo, would be obvious to combine with any other component that is also useful in shampoo, even without incentive to combine them. But "[o]bviousness cannot be established by combining the teaching of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination." In re Geiger, 815 F.2d 686, 688 (Fed. Cir. 1987)(citing ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984)). In the present case, the Examiner has included knowledge gleaned only from Appellant's disclosure--the knowledge of *combining* the elements as Appellant has combined them. The Examiner has not pointed to a teaching or suggestion

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

in the references that would have led one of ordinary skill in the art to Appellant's invention. Such a combination is improper.

Moreover, the Examiner's statement regarding "analogous arts" on page 4 of the Final Office Action dated July 16, 2002, is overly broad and irrelevant.

Appellants do not argue that the prior art is non-analogous. Nevertheless, whether prior art is "analogous" is not the test for obviousness. If this were the test, any composition containing known cosmetic components would be unpatentable, which is clearly not correct.

For at least these reasons, Applicants respectfully submit the Examiner is incorrect in maintaining the § 103 rejections of as a matter of law. Applicants therefore respectfully request that this ground of rejection be reversed and withdrawn.

B. Claims 1-17, 19, 20, 22, 24, and 101-104 Are Patentable Under 35U.S.C. § 103(a) over DALLE in view of QUACK.

The Examiner rejects claims 1-17, 19, 20, 22, 24 and 101-104 as unpatentable under 35 U.S.C. § 103(a) over DALLE, EP 0874017, in view of QUACK, U.S. 4,237,243. This rejection is improper at least because the Examiner has failed to establish a prima facie case of obviousness by finding any clear and particular motivation to combine the teachings of DALLE with those of QUACK.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

1. The Examiner's Position

The Examiner recognizes that DALLE does not teach the use of noncellulose thickening agents and seeks to provide that missing element with the teachings of QUACK. Office Action dated May 9, 2001, p. 4. According to the Examiner, QUACK "teaches the use of crosslinked polymers for increasing the viscosity in cosmetic compositions." Id. at p. 5. The Examiner also states that QUACK teaches the "use of water-soluble copolymers of acrylamide or acrylic acids, which meets claim 17, 19, and 20." Id. The use of thickeners in natural origin is also disclosed, according to the Examiner, meeting claim 18. Id. Claim 24 is met, according to the Examiner, by the disclosure in QUACK of formulations for cleansing liquid solutions comprising polyethylene glycols. Id. Moreover, QUACK teaches, according to the Examiner, the polymers of QUACK have "high swelling power which is particularly appropriate as a thickening agent in cosmetic compositions." Id. The Examiner then summarily states that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition in Dalle et al. by adding the thickeners disclosed in Quack et al. because of the expectation to have produced cosmetic compositions with desired viscosity." Id.

2. <u>Appellants' Position</u>

Appellants submit that the Examiner has failed to establish a prima facie case of obviousness at least because the Examiner has failed to find any clear

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

and particular motivation to combine the teachings of DALLE with those of QUACK.

In this regard, the Examiner relies on the silicone emulsion cosmetic teachings of DALLE. In contrast, QUACK discloses a "silicon oil emulsion' in furniture polish, (col. 15, lines 39-44). Appellants are unaware of any other teaching in QUACK regarding a "silicon oil emulsion." QUACK therefore fails to disclose or suggest that its teachings regarding silicone emulsions are applicable to cosmetics comprising silicone emulsions.

As noted above, the Federal Circuit reaffirmed the Examiner's high burden to establish a prima facie case of obviousness and emphasized a requirement for specificity. In *In re Lee*, the Federal Circuit held that "[t]he factual inquiry whether to combine references must be thorough and searching. It must be based on objective evidence of record. This precedent has been reinforced in a myriad decisions, and cannot be dispensed with." 277 F.3d 1338, 1433 (Fed. Cir. 2002).

In the present case, the Examiner has failed to point to the specific, objective teaching called for in *In re Lee*, nor do Appellants believe that any such teaching exists in the prior art relied upon by the Examiner. The Examiner has failed to point out any specific, objective motivation to combine DALLE and QUACK, instead summarily and unconvincingly stating that "[i]t would have been obvious to one of ordinary skill in the art…because of the expectation to have produced cosmetic compositions with desired viscosity." (Office Action dated May 9, 2001, p. 5.) The Examiner has failed to point out any specific, objective motivation to combine DALLE and QUACK because she has failed to specifically

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER

address Appellants' arguments regarding a "clear and particular" motivation and has not set forth any substantial evidence of a clear and particular motivation to combine the references. Rather, the Examiner is circumventing Appellants' arguments, and the applicable law, by using the references to piece together the present invention in hindsight. Picking and choosing among isolated disclosures in the references to deprecate the claimed invention amount to improper hindsight reconstruction and is prohibited. *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). Therefore, no motivation to combine DALLE and QUACK exists in the references, and this rejection is improper.

C. Claims 1-19, 22, 23, 25-36, and 101-104 Are Patentable Under 35 U.S.C. § 103(a) Over DALLE in View of MOUGIN.

The Examiner rejects claims 1-19, 22, 23, 25-36, and 101-104 as unpatentable under 35 U.S.C. § 103(a) over DALLE, EP 0874017, in view of MOUGIN, U.S. 6,166,093. This rejection is improper at least because the Examiner has failed to establish a prima facie case of obviousness by finding any clear and particular motivation to combine the teachings of DALLE with those of MOUGIN.

1. The Examiner's Position

The Examiner recognizes that DALLE does not teach the use of non-cellulose thickening agents and seeks to provide that missing element with the teachings of MOUGIN. Office Action dated May 9, 2001, p. 5. According to the Examiner, MOUGIN describes cosmetic compositions comprising silicone-grated

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP



polyurethane and/or polyurea block polycondensation products. *Id.* According to the Examiner, MOUGIN also teaches:

[T]he composition may additionally comprise conventional thickeners, including;

- (1) guar gum and xanthan gum, which meets claims 17-18;
- (1) [sic] "Bozepol C," the crosslinked acrylamide and ammonium acrylate polymers, which meets claims 19, 22, 23 and 25-28;
- (2) "Sepigel 305", the crosslinked acrylamide and 2-acrylamido-2-methylpropanesulphonic acid polymers, partially or totally neutralized, which meets claims 19, 22, 23, and 29-31;
- (3) "Salcare SC95", the crosslinked acrylamide and methacryloxyethyltrimethylammonium chloride polymers which meets, claims 19, 22, 23, 32, and 33;
- (4) the crosslinked homopolymers of methacryloyloxyethyltrimethylammonium chloride, which meets claim 19, 22, and 23."

Id. at 5-6.

Furthermore, the Examiner asserts that Example 10 of MOUGIN illustrates a formulation for mascaras "which employs 2% by weight of gum Arabic, which is considered to be a natural thickener and meets claims 34-37." *Id.* at 6. The Examiner then summarily states that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition in Dalle et al. by adding the conventional thickening agent taught by Mougin et al. because of the expectation to have produced cosmetic compositions with desired viscosity." *Id.*

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

2. Appellants' Position

Appellants submit that the Examiner has failed to establish a prima facie case of obviousness at least because the Examiner has failed to find any clear and particular motivation to combine the teachings of DALLE with those of MOUGIN.

The Examiner recognizes that DALLE does not teach the use of non-cellulose thickening agents and seeks to provide that missing element with the teachings of MOUGIN. Nevertheless, even though MOUGIN discloses the use of thickening agents for use in mascaras, this teaching is far too general to provide a motivation to combine the teachings of DALLE with the teachings of MOUGIN. MOUGIN therefore fails to disclose or suggest that its teachings are applicable to compositions such as those disclosed in DALLE.

As noted above, the Federal Circuit reaffirmed the Examiner's high burden to establish a prima facie case of obviousness in In re Lee and emphasized a requirement for specificity. In the present case, the Examiner has failed to point to the specific, objective teaching called for in *In re Lee*, nor do Appellants believe that any such teaching exists in the prior art relied upon by the Examiner.

The Examiner has failed to point out any specific, objective motivation to combine DALLE and MOUGIN, instead summarily and unconvincingly stating that "[i]t would have been obvious to one of ordinary skill in the art...because of the expectation to have produced cosmetic compositions with desired viscosity." (Office Action dated May 9, 2001, p. 6.) The Examiner has failed to point out any specific, objective motivation to combine DALLE and MOUGIN because she has

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP



failed to specifically address Appellants' arguments regarding a "clear and particular" motivation and has not set forth any substantial evidence of a clear and particular motivation to combine the references. Rather, the Examiner is circumventing Appellants' arguments, and the applicable law, by using the references to piece together the present invention in hindsight. But picking and choosing among isolated disclosures in the references to deprecate the claimed invention amounts to improper hindsight reconstruction and is prohibited. *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). Therefore, no motivation to combine DALLE and MOUGIN exists in the references, and this rejection is improper.

D. Claims 37-63 Are Patentable Under 35 U.S.C. § 103(a) Over DALLE in View of MOUGIN in Further View of RESTLE.

The Examiner rejects claims 37-63 as unpatentable under 35 U.S.C. § 103(a) over DALLE, EP 0874017, in view of MOUGIN, U.S. 6,166,093, in further view of RESTLE, U.S. 6,039,936. This rejection is improper at least because the Examiner has failed to establish a prima facie case of obviousness by finding any clear and particular motivation to combine the teachings of DALLE with those of MOUGIN and RESTLE.

1. The Examiner's Position

The Examiner recognizes that DALLE in view of MOUGIN does not teach the use the specific surfactants in claims 37-63, and seeks to provide those missing elements with the teachings of RESTLE. Office Action dated May 9,

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP



2001, p. 7. According to the Examiner, RESTLE teaches cosmetic oil-in-water emulsions comprising nonionic amphiphilic lipids (silicone surfactants) and cationic amphiphilic lipids. *Id.* The Examiner asserts that RESTLE describes the cationic amphiphilic lipids from the group formed by quaternary ammonium salts that meet claims 37-60. *Id.* The Examiner further states that Example 1 and 2 in the references teach employing 1.5% of the disclosed cationic amphiphilic lipids, which meets claims 61-63. *Id.* According to the Examiner, RESTLE further teaches that the advantages of the compositions include an enhanced penetration of active cosmetic ingredients on hair, and glossy appearance without greasy feel an softness. *Id.*

The Examiner then summarily states that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the composition in the combined references by adding the cationic surfactants of the quaternary ammonium salts in Restle et al. because of the expectation to have produced compositions which would enhance penetration of actives and glossy appearance, and softeness [sic] on hair, as taught by Restle et al.

2. Appellants' Position

Appellants submit that the Examiner has failed to establish a prima facie case of obviousness at least because the Examiner has failed to find any clear and particular motivation to combine the teachings of DALLE with those of MOUGIN and RESTLE.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLL



The Examiner admits that DALLE and MOUGIN as combined "lack a mention that the specific surfactants in claims 37-63 may be used in the composition." Office Action dated May 9, 2001, page 7, lines 1-2. To remedy this deficiency, the Examiner alleges it would have been obvious to combine the teachings of DALLE and MOUGIN with the surfactants of RESTLE. However, this combination fails to satisfy the requirements of obviousness for a least the reasons that not all of the claim limitations are taught by the combination, and the Examiner has not stated a clear and particular motivation for such a combination.

First, as discussed above, because the combination of DALLE with MOUGIN does not teach or suggest Appellants' viscosity range, let alone any viscosity range, for the silicone copolymer in DALLE, further combination with RESTLE is inadequate.

Second, the Examiner alleges that the incentive for combining DALLE with MOUGIN and RESTLE is the "expectation to have produced composition which would enhance penetration of actives and glossy appearance, and softeness [sic] on hair, as taught by Restle et al." Office Action dated May 9, 2001, p. 7, lines 11-15. However, even though DALLE mentions cationic surfactants, the reference teaches away from the use of cationic surfactants by distinguishing itself from prior art comprising cationic surfactants. Specifically, DALLE recites "the anionic and cationic surfactants used in these emulsions can be irritating to the skin and they can affect the stability of products into which the emulsions are incorporated." DALLE, p. 2, lines 17-20. Contrary to the Examiner's assertion, one of ordinary skill in the art with DALLE before her would not think it prudent to

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

incorporate the cationic surfactants of RESTLE for fear of the drawbacks explicitly disclosed in DALLE. Therefore the Examiner's rejection in improper and should be reversed and withdrawn.

E. Claims 64-100 Are Patentable Under 35 U.S.C. § 103(a) Over DALLE in view of MOUGIN in Further View of DECOSTER.

The Examiner rejects claims 64-100 as unpatentable under 35 U.S.C. § 103(a) over DALLE, EP 0874017, in view of MOUGIN, U.S. 6,166,093, in further view of DECOSTER, U.S. 6,150,311. This rejection is improper at least because the Examiner has failed to establish a prima facie case of obviousness by finding any clear and particular motivation to combine the teachings of DALLE with those of MOUGIN and DECOSTER.

1. The Examiner's Position

The Examiner recognizes that DALLE in view of MOUGIN does not teach the use the specific surfactants in claims 64-100. Office Action dated May 9, 2001, p. 7-8. The Examiner seeks to remedy this deficiency with the teachings of DECOSTER, which, according to the Examiner describes cosmetic compositions for cleaning and conditioning keratinous materials comprising insoluble silicone and a washing base, which is a mixture of anionic, amphoteric, nonionic, and cationic surfactants. *Id.* at 8 According to the Examiner, claims 64-67 are met by the teaching in DECOSTER of compositions compromising 4-50% by weight of the washing base. *Id.* The Examiner also states that the anionic surfactants in

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

claims 68-75, the nonionic surfactants in claims 76-79, and the amphoteric surfactants in claims 80-84 are all disclosed by DECOSTER. *Id.* Furthermore, the Examiner asserts in rejecting claims 85-89 that DECOSTER teaches that the most preferred mixture of the surfactants comprise anionic and amphoteric surfactants. *Id.* The Examiner also states that claims 90 and 91 are met by the teaching in DECOSTER that 0.001-10% by weight of cationic polymers may be employed in the composition. *Id.* Moreover, the Examiner maintains that the method of using the compositions in DECOSTER meets claims 92-104. *Id.* According to the Examiner, DECOSTER also teaches that a stable detergent composition having excellent cosmetic properties may be formulated from insoluble silicones in the washing base. *Id.* Finally, the Examiner asserts that DECOSTER teaches the optional use of cationic surfactants, including quaternary ammonium salts and imidazoline derivatives.

The Examiner then summarily states that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the compositions in the combined references by adding the surfactants disclosed in Decoster et al. because of the expectation to have produced stable cleansing compositions for keratinous materials which retain the advantages of cosmetic properties of the actives, as taught by Decoster et al."

2. Appellants' Position

Appellants submit that the Examiner has failed to establish a prima facie case of obviousness at least because the Examiner has failed to find any clear

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

and particular motivation to combine the teachings of DALLE with those of MOUGIN and DECOSTER. Additionally, as discussed above, the combination of DALLE with MOUGIN does not teach or suggest Applicants' viscosity range, let alone any viscosity range, for the silicone copolymer in DALLE.

The Examiner has alleged that it would have been obvious to add the surfactants of DECOSTER to the composition of DALLE comprising the thickeners of MOUGIN "because of the expectation to have produced stable cleansing compositions for [keratinous] materials which retain the advantages of cosmetic properties of the actives, as taught by Decoster et al." Office Action dated May 9, 2001, p. 8, lines 17-21. But the Examiner "must explain the reasons one of ordinary skill in the art would have been motivated to select the references and combine them to render the claimed invention obvious." In re Rouffet, 149 F.3d 1350, 1359 (Fed. Cir. 1998) (emphasis supplied). Here the Examiner has only provided a reason for selecting one of Applicants' claimed components; however, the Examiner must also articulate a reason to support the combination of this component with Applicants' other claimed components. Because the Examiner has failed to establish a prima facie case of obviousness over the DALLE/MOUGIN/DECOSTER combination, this rejection is improper and should be reversed and withdrawn.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

IV. Conclusion

Appellants respectfully request that each rejection be reversed and withdrawn. Please grant any extensions of time required to enter this Brief and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: June 4, 2003

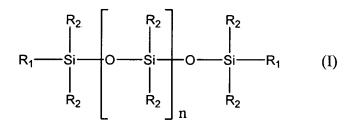
Mark D. Sweet Reg. No. 41,469

ATTACHMENTS: Appendix of Pending Claims

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

APPENDIX OF PENDING CLAIMS ON APPEAL

- 1. A cosmetic composition comprising, in a cosmetically acceptable medium, at least one non-cellulose thickener and at least one aqueous emulsion comprising at least one silicone copolymer with a dynamic viscosity ranging from 1×10^6 to 100×10^6 cP, resulting from the addition reaction, in the presence of a catalyst, of:
 - (a) at least one polysiloxane of formula (I):



in which:

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,
- n is an integer wherein said at least one polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1 x 10^6 mm²/s; and
- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R₁ of said at least one polysiloxane (a), wherein:
 - at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

- 2. A composition according to claim 1, wherein R_1 is chosen from a hydrogen atom and aliphatic groups comprising an ethylenic unsaturation.
- 3. A composition according to claim 2, wherein the aliphatic groups comprising an ethylenic unsaturation are chosen from vinyl, allyl and hexenyl groups.
- 4. A composition according to claim 1, wherein the groups R₂ are chosen from hydroxyl groups; alkyl groups comprising from 1 to 20 carbon atoms; cycloalkyl groups comprising from 5 to 6 carbon atoms; phenyl groups; alkylaryl groups comprising from 7 to 20 carbon atoms; and optionally comprising at least one functional group chosen from ethers, amines, carboxyls, hydroxyls, thiols, esters, sulfonates and sulfates.
- 5. A composition according to claim 1, wherein said alkenyl groups are chosen from alkenyl groups comprising from 2 to 10 carbon atoms.
 - 6. A composition according to claim 1, wherein R_2 is a methyl group.
- 7. A composition according to claim 1, wherein n is an integer ranging from 5 to 5,000.
- 8. A composition according to claim 1, wherein said at least one silicone compound of type (b) is another at least one polysiloxane of type (a) in

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

which at least one and not more than two groups R_1 of said at least one silicone compound of type (b) can react with the groups R_1 of said at least one polysiloxane (a).

- 9. A composition according to claim 1, wherein, in the presence of a hydrosilylation catalyst, the at least one silicone copolymer is obtained by addition reaction of at least:
 - (a) one α,ω -divinylpolydimethylsiloxane, and
 - (b) one " α , ω -dihydrogenopolydimethylsiloxane.
- 10. A composition according to claim 9, wherein the hydrosilylation catalyst is a platinum catalyst.
- 11. A composition according to claim 1, wherein said aqueous emulsion of the at least one silicone copolymer has a silicone droplet or particle size ranging from 10 nm to 50 μ m.
- 12. A composition according to claim 11, wherein said emulsion of the at least one silicone copolymer has a silicone droplet or particle size ranging from 0.3 μ m to 20 μ m.
- 13. A composition according to claim 1, wherein said aqueous emulsion of the at least one silicone copolymer represents from 0.5% to 15% by weight relative to the total weight of the composition.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

methacrylic acid polymers and copolymers obtained from at least one monomer chosen from acrylic acid and methacrylic acid.

- 20. A composition according to claim 19, wherein said at least one non-cellulose thickener of synthetic origin is chosen from acrylic acid/ethyl acrylate copolymers.
- 21. A composition according to claim 17, wherein said at least one noncellulose thickener of synthetic origin is chosen from carboxyvinyl polymers.
- 22. A composition according to claim 19, wherein said at least one non-cellulose thickener of synthetic origin is chosen from copolymers of acrylamide and an acrylamide derivative.
- 23. A composition according to claim 1, wherein said at least one noncellulose thickener is chosen from:
 - crosslinked 2-acrylamido-2-methylpropanesulfonic homopolymers,
- optionally crosslinked copolymers of acrylamide and of ammonium acrylate,
- optionally crosslinked copolymers of acrylamide and of methacrylamide and of methacryloyloxyethyltrimethylammonium chloride, and
- optionally crosslinked, partially and totally neutralized copolymers of acrylamide and of 2-acrylamido-2-methylpropanesulfonic acid.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

14. A composition according to claim 1, wherein the at least one silicone copolymer is essentially non-crosslinked.

- 15. A composition according to claim 1, wherein the at least one silicone copolymer is present in an amount ranging from 0.05% to 10% by weight relative to the total weight of the composition.
- 16. A composition according to claim 15, wherein the at least one silicone copolymer is present in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.
- 17. A composition according to claim 1, wherein said at least one noncellulose thickener is chosen from natural thickeners and synthetic origin thickeners.
- 18. A composition according to claim 17, wherein said at least one non-cellulose thickener of natural origin is optionally chemically-modified and is chosen from xanthan gum, scleroglucan gum, gellan gum, rhamsan gum, alginates, maltodextrin, starch, starch derivatives, karaya gum, carob flour, and guar gums.
- 19. A composition according to claim 17, wherein said at least one noncellulose thickener of synthetic origin is chosen from acrylic acid polymers,

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

- 24. A composition according to claim 17, wherein said at least one non-cellulose thickener of synthetic origin is chosen from polyethylene glycols and polyethylene glycol derivatives.
- 25. A composition according to claim 23, wherein said optionally crosslinked copolymers of acrylamide and of ammonium acrylate are chosen from acrylamide/ammonium acrylate copolymers crosslinked with a crosslinking agent comprising polyolefinic unsaturation.
- 26. A composition according to claim 25, wherein said optionally crosslinked copolymers of acrylamide and of ammonium acrylate are chosen from acrylamide/ammonium acrylate copolymers (5/95 by weight) crosslinked with a crosslinking agent comprising polyolefinic unsaturation.
- 27. A composition according to claim 25, wherein said crosslinking agent is chosen from divinylbenzene, tetraallyloxyethane, methylenebisacrylamide, diallyl ether, polyallylpolyglyceryl ethers and allyl ethers of alcohols of the sugar series.
- 28. A composition according to claim 27, wherein said allyl ethers of alcohols of the sugar series are chosen from erythritol, pentaerythritol, arabitol, mannitol, sorbitol and glucose.
- 29. A composition according to claim 23, wherein said copolymers of acrylamide and of 2-acrylamido-2-methylpropanesulfonic acid are chosen from

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

copolymers crosslinked with a compound comprising polyolefinic unsaturation, and partially or totally neutralized with a neutralizing agent.

- 30. A composition according to claim 29, wherein said neutralizing agent is chosen from sodium hydroxide, potassium hydroxide, aqueous ammonia and amines.
- 31. A composition according to claim 30, wherein said amines are chosen from triethanolamine and monoethanolamine.
- 32. A composition according to claim 23, wherein said crosslinked copolymers of acrylamide and of methacryloyloxyethyltrimethylammonium chloride are chosen from copolymers obtained by copolymerization of acrylamide and of dimethylaminoethyl methacrylate quaternized with methyl chloride, followed by crosslinking with a compound comprising olefinic unsaturation.
- 33. A composition according to claim 32, wherein said compound comprising olefinic unsaturation is chosen from methylenebisacrylamide.
- 34. A composition according to claim 17, wherein said at least one non-cellulose thickener is present in an amount ranging frm 0.001% to 20% by weight relative to the total weight of the composition.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

- 35. A composition according to claim 34, wherein said at least one non-cellulose thickener is present in an amount ranging from 0.01% to 10% by weight relative to the total weight of the composition.
- 36. A composition according to claim 35, wherein said at least one non-cellulose thickener is present in an amount ranging from 0.1% to 3% by weight relative to the total weight of the composition.
- 37. A composition according to claim 1 further comprising at least one cationic surfactant chosen from:
 - A) quaternary ammonium salts of formula (IV) below:

in which:

- the radicals R_1 , R_2 , R_3 , and R_4 , which may be identical or different, are independently chosen from linear and branched aliphatic radicals comprising from 1 to 30 carbon atoms, and aromatic radicals, wherein the aliphatic radicals optionally comprise hetero atoms, and
- X⁻ is an anion chosen from the group of halides, phosphates, anions derived from organic acids, (C₂-C₆)alkyl sulfates, alkyl sulfonates, and alkylaryl sulfonates;
- B) quaternary ammonium salts of imidazolinium of formula (V) below:

HENDERSON FARABOW GARRETT & DUNNER LLP

$$\begin{bmatrix} & & & \\ &$$

in which:

- R_5 is chosen from alkenyl and alkyl radicals comprising from 8 to 30 carbon atoms,
- R₆ is chosen from a hydrogen atom, C₁-C₄ alkyl radicals, and alkenyl and alkyl radicals comprising from 8 to 30 carbon atoms,
 - R₇ is chosen from C₁-C₄ alkyl radicals,
- R_8 is chosen from a hydrogen atom and $C_1\text{-}C_4$ alkyl radicals, and
- X⁻ is an anion chosen from halides, phosphates, acetates, lactates, alkyl sulfates, alkyl sulfonates, and alkylaryl sulfonates;
 C) diquaternary ammonium salts of formula (VI):

$$\begin{bmatrix} R_{10} & R_{12} & & & \\ R_{9} & N & (CH_{2})_{3} & N & R_{14} & & 2X \end{bmatrix}^{++}$$

$$\begin{bmatrix} R_{11} & R_{13} & & & \\ & R_{13} & & & \\ & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & & \\ &$$

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLL

in which:

- R_9 is chosen from aliphatic radicals comprising from 16 to 30 carbon atoms,
- R₁₀, R₁₁, R₁₂, R₁₃ and R₁₄, which may be identical or different, are independently chosen from a hydrogen atom and alkyl radicals comprising from 1 to 4 carbon atoms, and
- X is an anion chosen from halides, acetates, phosphates, nitrates and methyl sulfates;
- D) quaternary ammonium salts of formula (VII) below comprising at least one ester function:

in which:

- R_{15} is chosen from C_1 - C_6 alkyl radicals and C_1 - C_6 hydroxyalkyl and C_1 - C_6 dihydroxyalkyl radicals;
 - R₁₆ is chosen from:
 - acyl groups of the following formula:

wherein R₁₉ is defined below,

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

- linear and branched, saturated and unsaturated, C₁-C₂₂
 hydrocarbon-based radicals, and- a hydrogen atom;
 - R₁₈ is chosen from:
 - acyl groups of the following formula:

wherein R₂₁ is defined below,

- linear and branched, saturated and unsaturated, C₁-C₆ hydrocarbon-based radicals, and
 - a hydrogen atom;
- R₁₇, R₁₉ and R₂₁, which may be identical or different, are independently chosen from linear and branched, saturated and unsaturated, C₇-C₂₁ hydrocarbon-based radicals;
- n, p and r, which may be identical or different, are independently integers ranging from 2 to 6;
 - y is an integer ranging from 1 to 10;
- x and z, which may be identical or different, are independently integers ranging from 0 to 10; and
- X^- is chosen from simple and complex, organic and inorganic anions; and- provided that the sum x + y + z is from 1 to 15, and that when x is 0, then R_{16} is chosen from linear and branched, saturated and unsaturated, C_1 - C_{22} hydrocarbon-based radicals, and that when z is 0, then R_{18} is chosen from linear and branched, saturated and unsaturated, C_1 - C_6 hydrocarbon-based radicals.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

- 38. A composition according to claim 37, wherein said at least one cationic surfactant is chosen from:
 - A) quaternary ammonium salts of formula (IV) below:

$$\begin{bmatrix} R_1 & R_3 \\ R_2 & R_4 \end{bmatrix}^+ X^-$$
 (IV)

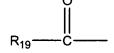
wherein:

- X is an anion chosen from halides, (C₂-C₆)alkyl sulfates, phosphates, alkyl and alkylaryl sulfonates, and anions derived from organic acids, and
- i) the radicals R_1 , R_2 , and R_3 , which may be identical or different, are independently chosen from linear and branched aliphatic radicals comprising from 1 to 4 carbon atoms, optionally comprising hetero atoms, and aromatic radicals, and
- R₄ is chosen from linear and branched alkyl radicals comprising from 16 to 30 carbon atoms;
- ii) the radicals R₁ and R₂, which may be identical or different, are independently chosen from linear and branched aliphatic radicals comprising from 1 to 4 carbon atoms, optionally comprising hetero atoms, and aromatic radicals, and
- R_3 and R_4 , which may be identical or different, are independently chosen from linear and branched alkyl radicals comprising from 12 to 30 carbon

FINNEGAN HENDERSON FARABOW GARRETT &

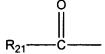
atoms, wherein said radicals further comprise at least one function chosen from ester and amide functions.

- 39. A composition according to claim 37, wherein said quaternary ammonium salts of formula (VII) are chosen from quaternary ammonium salts of formula (VII) wherein:
- R_{15} is chosen from methyl and ethyl radicals,
- x and y are equal to 1;
- z is equal to 0 or 1;
- n, p and r are equal to 2;
- R₁₆ is chosen from:
 - acyl radicals



wherein R₁₉ is defined below,

- methyl, ethyl and C₁₄-C₂₂ hydrocarbon-based radicals, and
- a hydrogen atom;
- R₁₈ is chosen from:
 - acyl radicals



- wherein R₂₁ is defined below,
- a hydrogen atom; and

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Attorney Docke o. 05725.0785-00 Application No.: 09/692,716

- R_{17} , R_{19} and R_{21} , which may be identical or different, are independently chosen from linear and branched, saturated and unsaturated, C_{13} - C_{17} hydrocarbon-based radicals.

- 40. A composition according to claim 39, wherein R_{17} , R_{19} and R_{21} are chosen from linear and branched, saturated and unsaturated C_{13} - C_{17} aliphatic radicals.
- 41. A composition according to claim 39, wherein the hydrocarbon-based radicals are chosen from linear hydrocarbon-based radicals.
- 42. A composition according to claim 37, wherein the compounds of formula (VII) are chosen from diacyloxyethyldimethylammonium, diacyloxyethylhydroxyethylmethylammonium, monoacyloxyethyldihydroxyethylmethylammonium, triacyloxyethylmethylammonium and monoacyloxyethylhydroxyethyldimethylammonium salts.
- 43. A composition according to claim 42, wherein said monoacyloxyethyl-hydroxyethyldimethylammonium salts are chosen from monoacyloxyethyl-hydroxyethyldimethylammonium chloride salts and monoacyloxyethyl-hydroxyethyldimethylammonium methyl sulfate salts.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Attorney Docket 0. 05725.0785-00 Application No.: 09/692,716

- 44. A composition according to claim 39, wherein when R_{16} and R_{18} are chosen from acyl radicals, said acyl radicals are obtained from plant oils chosen from palm oil and sunflower oil.
- 45. A composition according to claim 37, wherein X⁻ of said quaternary ammonium salts of formula (IV) is an anion chosen from chloride, bromide, iodide, methyl sulfate, acetate, and lactate.
- 46. A composition according to claim 37, wherein said aromatic radicals of said quaternary-ammonium salts of formula (IV) are chosen from aryl and alkylaryl.
- 47. A composition according to claim 37, wherein said hetero atoms of said quaternary ammonium salts of formula (IV) are chosen from oxygen, nitrogen, sulfur and halogens.
- 48. A composition according to claim 38, wherein said aliphatic radicals of formula (IV)(ii) are chosen from alkyl, alkoxy, alkylamide, polyoxy(C₂-C₆)alkylene, and hydroxyalkyl radicals comprising from 1 to 4 carbon atoms.
- 49. A composition according to claim 38, wherein said R_3 and R_4 of formula (IV)(ii) are chosen from (C_{12} - C_{22})alkylamido(C_2 - C_6)alkyl and (C_{12} - C_{22})alkylacetate radicals.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

- 50. A composition according to claim 37, wherein said R_5 of formula (V) is chosen from radicals derived from tallow fatty acid.
- 51. A composition according to claim 37, wherein in said quaternary ammonium salts of imidazolinium of formula (V):
- R_5 and R_6 , which may be identical or different, are independently chosen from alkenyl and alkyl radicals comprising from 12 to 21 carbon atoms,
 - R₇ is methyl, and
 - R₈ is hydrogen.
- 52. A composition according to claim 51, wherein said R_5 and R_6 , which may be identical or different, are independently chosen from radicals derived from tallow fatty acid.
- 53. A composition according to claim 37, wherein said diquaternary ammonium salts comprise propane tallow diammonium dichloride.
- 54. A composition according to claim 37, wherein said R₁₅ alkyl radicals of said quaternary ammonium salts of formula (VII) are chosen from linear and branched C₁-C₆ alkyl radicals.
- 55. A composition according to claim 54, wherein said R₁₅ radicals are linear radicals.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

- 56. A composition according to claim 55, wherein said R₁₅ radicals are chosen from methyl, ethyl, hydroxyethyl and dihydroxypropyl.
- 57. A composition according to claim 56, wherein said R_{15} radicals are chosen from methyl and ethyl.
- 58. A composition according to claim 37, wherein said sum of x + y + z of said quaternary ammonium salts of formula (VII) ranges from 1-10.
- 59. A composition according to claim 37, wherein said quaternary ammonium salts of formula (IV) are chosen from (a) compounds comprising at least two fatty aliphatic radicals comprising from 8 to 30 carbon atoms, (b) compounds comprising at least one fatty aliphatic radical comprising from 17 to 30 carbon atoms, and (c) compounds comprising at least one aromatic radical.
- 60. A composition according to claim 37, wherein said at least one cationic surfactant is chosen from behenyltrimethylammonium salts, stearamidopropyldimethyl(myristyl acetate)ammonium salts, Quaternium-27 and Quaternium-83.
- 61. A composition according to claim 37, wherein the at least one cationic surfactant is present in an amount ranging from 0.1% to 10% by weight relative to the total weight of the composition.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LL

Attorney Docke To. 05725.0785-00 Application No.: 09/692,716

- 62. A composition according to claim 61, wherein the at least one cationic surfactant is present in an amount ranging from 0.5% to 7% by weight relative to the total weight of the composition.
- 63. A composition according to claim 62, wherein the at least one cationic surfactant is present in an amount ranging from 1% to 5% by weight relative to the total weight of the composition.
- 64. A composition according to claim 1 further comprising at least one surfactant chosen from anionic, nonionic, and amphoteric surfactants.
- 65. A composition according to claim 64, wherein the at least one surfactant chosen from anionic, nonionic, and amphoteric surfactants is present in an amount ranging from 0.1% to 60% by weight, relative to the total weight of the composition.
- 66. A composition according to claim 65, wherein the at least one surfactant chosen from anionic, nonionic, and amphoteric surfactants is present in an amount ranging from 3% to 40% by weight, relative to the total weight of the composition.
- 67. A composition according to claim 66, wherein the at least one surfactant chosen from anionic, nonionic, and amphoteric surfactants is present

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Attorney Docket 5. 05725.0785-00 Application No.: 09/692,716

in an amount ranging from 5% to 30% by weight, relative to the total weight of the composition.

- 68. A composition according to claim 64, wherein the at least one surfactant chosen from anionic, nonionic, and amphoteric surfactants comprises at least one anionic surfactant salt chosen from alkyl sulfates, alkyl ether sulfates, alkylamidoether sulfates, alkylarylpolyether sulfates, monoglyceride sulfates; alkyl sulfonates, alkyl phosphates, alkylamide sulfonates, alkylaryl sulfonates, "-olefin sulfonates, paraffin sulfonates; alkyl sulfosuccinates, alkyl ether sulfosuccinates, alkylamide sulfosuccinates; alkyl sulfosuccinamates; alkyl sulfosuccinamates; alkyl sulfoacetates; alkyl ether phosphates; acyl sarcosinates; acyl isethionates and N-acyltaurates.
- 69. A composition according to claim 64, wherein said at least one surfactant is chosen from anionic surfactants chosen from alkaline salts, sodium salts, ammonium salts, amine salts, amino alcohol salts and magnesium salts.
- 70. A composition according to claim 68, wherein said alkyl and acyl portions of radicals of said salts comprise 1 and from 8 to 24 carbon atoms, and said aryl portions of radicals of said salts are phenyl.
- 71. A composition according to claim 64, wherein said at least one surfactant is chosen from anionic surfactants chosen from fatty acid salts, acyl lactates wherein the acyl radical comprises 8 to 20 carbon atoms, and weakly anionic surfactants.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Attorney Docke b. 05725.0785-00 Application No.: 09/692,716

- 72. A composition according to claim 71, wherein said fatty acid salts are chosen from the salts of oleic acid, ricinoleic acid, palmitic acid, stearic acid, coconut oil acid and hydrogenated coconut oil acid.
- 73. A composition according to claim 64, wherein said at least one surfactant is chosen from anionic surfactants chosen from alkyl-D-galactosiduronic acids and their salts, polyoxyalkylenated (C₆-C₂₄) alkyl ether carboxylic acids and their salts, polyoxyalkylenated (C₆-C₂₄) alkylaryl ether carboxylic acids and their salts, and polyoxyalkylenated (C₆-C₂₄) alkylamido ether carboxylic acids and their salts.
- 74. A composition according to claim 71, wherein said weakly anionic surfactants comprise from 2 to 50 ethylene oxide groups.
- 75. A composition according to claim 68, wherein said at least one anionic surfactant salt is chosen from alkyl sulfates and alkyl ether sulfates.
- 76. A composition according to claim 64, wherein said at least one surfactant is chosen from nonionic surfactants chosen from polyethoxylated, polypropoxylated and polyglycerolated fatty acids, alkylphenols, "-diols and alcohols having a fatty aliphatic chain comprising from 8 to 18 carbon atoms, wherein the number of ethylene oxide and propylene oxide groups ranges from 2 to 50 and the number of glycerol groups ranges from 2 to 30, copolymers of ethylene oxide and of propylene oxide, condensates of ethylene oxide and of

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Attorney Docketto. 05725.0785-00 Application No.: 09/692,716

propylene oxide with fatty alcohols, polyethoxylated fatty amides comprising from 2 to 30 mol of ethylene oxide, polyglycerolated fatty amides comprising on average from 1 to 5 glycerol groups, polyethoxylated fatty amines comprising from 2 to 30 mol of ethylene oxide, oxyethylenated fatty acid esters of sorbitan comprising from 2 to 30 mol of ethylene oxide, fatty acid esters of sucrose, fatty acid esters of polyethylene glycol, alkylpolyglycosides, N-alkylglucamine derivatives, and amine oxides.

- 77. A composition according to claim 76, wherein said polyglycerolated fatty amides comprise on average from 1.5 to 4 glycerol groups.
- 78. A composition according to claim 76, wherein said amine oxides are chosen from (C₁₀-C₁₄)alkylamine oxides and N-acylaminopropylmorpholine oxides.
- 79. A composition according to claim 76, wherein said nonionic surfactants are chosen from alkylpolyglycosides.
- 80. A composition according to claim 64, wherein said at least one surfactant is chosen from amphoteric surfactants chosen from aliphatic secondary and tertiary amine derivatives wherein the aliphatic radical is chosen from linear and branched chain radicals comprising from 8 to 22 carbon atoms and comprising at least one water-soluble anionic group, (C₈-C₂₀)alkylbetaines, sulfobetaines, (C₈-C₂₀)alkylamido(C₁-C₆)alkylsulfobetaines.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

- 81. A composition according to claim 80, wherein said at least one water-soluble anionic group is chosen from carboxylates, sulfonates, phosphates and phosphonates.
- 82. A composition according to claim 80, wherein said amine derivatives are chosen from the compounds:

$$R_2-CONHCH_2CH_2-N^{\dagger}(R_3)(R_4)(CH_2COO-) \qquad (2)$$

in which:

- R_2 is chosen from alkyl radicals derived from an acid R_2 -COOH present in hydrolysed coconut oil, heptyl, nonyl and undecyl radicals,
 - R₃ is chosen from \$-hydroxyethyl groups, and
 - R₄ is chosen from carboxymethyl groups;

and

$$R_5-CONHCH_2CH_2-N(B)(C)$$
 (3)

in which:

- (B) is -CH₂CH₂OX', with X' chosen from a -CH₂CH₂-COOH group and a hydrogen atom,
- (C) is -(CH₂)_z-Y', wherein z is equal to 1 or 2, and with Y' chosen from COOH and -CH₂-CHOH-SO₃H radicals,
 - R₅ is chosen from alkyl radicals and unsaturated C₁₇ radicals.
- 83. A composition according to claim 82, wherein said alkyl radicals R_5 are chosen from (a) alkyl radicals of an acid R_5 -COOH present in oils chosen

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Attorney Dockes 5. 05725.0785-00 **Application No.: 09/692,716**

from coconut oil and hydrolysed linseed oil, and (b) C₁₇ alkyl radicals and the iso forms.

- 84. A composition according to claim 82, wherein said alkyl radicals of said R₅ are chosen from alkyl radicals chosen from C₇, C₉, C₁₁ and C₁₃ alkyl radicals.
- 85. A composition according to claim 64, wherein said at least one surfactant is chosen from at least two surfactants of different types.
- 86. A composition according to claim 85, wherein said at least two surfactants of different types are chosen from (a) more than one anionic surfactant, (b) at least one anionic surfactant and at least one amphoteric surfactant, and (c) at least one anionic surfactant and and at least one nonionic surfactant.
- 87. A composition according to claim 64, wherein said at least one surfactant is chosen from anionic surfactants chosen from (C₁₂-C₁₄)alkyl sulfates of sodium, of triethanolamine and of ammonium, (C₁₂-C₁₄)alkyl ether sulfates of sodium, of triethanolamine and of ammonium, oxyethylenated with 2.2 mol of ethylene oxide, sodium cocoyl isethionate, and sodium (C₁₄-C₁₆)-"-olefin sulfonate, and from an amphoteric surfactant chosen from either:
- amine derivatives comprising disodium cocoamphodipropionate and sodium cocoamphopropionate, or
 - amphoteric surfactants of zwitterionic type.

1300 I Street, NW Washington, DC 20005 202.408.4000 Fax 202.408.4400

www.finnegan.com

FINNEGAN

HENDERSON FARABOW GARRETT &

DUNNERLL

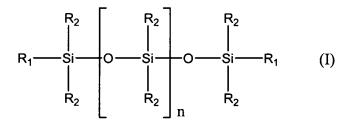
Attorney Dockesso. 05725.0785-00 Application No.: 09/692,716

- 88. A composition according to claim 87, wherein said amphoteric surfactants of zwitterionic type are chosen from alkylbetaines.
- 89. A composition according to claim 88, wherein said alkylbetaines are chosen from cocobetaine.
- 90. A composition according to claim 1 further comprising at least one additive chosen from fragrances, nacreous agents, preserving agents, silicone sunscreens, non-silicone sunscreens, vitamins, provitamins, cationic, amphoteric, anionic and nonionic polymers, proteins, protein hydrolysates, 18-methyleicosanoic acid, hydroxy acids, panthenol, volatile and non-volatile, cyclic and linear and crosslinked, modified and non-modified silicones, ceramides, pseudoceramides, and plant, animal, mineral and synthetic oils.
- 91. A composition according to claim 90, wherein said at least one additive is present in an amount ranging from 0 to 20% by weight relative to the total weight of the composition.
- 92. A rinse-out conditioner, a leave-in conditioner, a composition for permanent-waving the hair, a composition for straightening the hair, a composition for dyeing the hair, a composition for bleaching the hair, a rinse-out composition to be applied before a procedure chosen from dyeing, bleaching, permanent-waving and straightening the hair, a rinse-out composition to be

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

applied after a procedure chosen from dyeing, bleaching, permanent-waving and straightening the hair, a rinse-out composition to be applied between the two steps of a permanent-waving operation, a rinse-out composition to be applied between the two steps of a hair-straightening operation, a washing composition for the body, an aqueous lotion, an aqueous-alcoholic lotion, a gel, a milk, a cream, an emulsion, a thickened lotion, a mousse, or a detergent composition comprising a washing base comprising, in a cosmetically acceptable medium, at least one non-cellulose thickener and at least one aqueous emulsion comprising at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10⁶ to 100 x 10⁶ cP, resulting from the addition reaction, in the presence of a catalyst, of:

- (a) at least one polysiloxane of formula (I):



in which:

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

Attorney Docke O. 05725.0785-00 Application No.: 09/692,716

- n is an integer wherein said at least one polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1 x 10⁶ mm²/s; and

- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R_1 of said at least one polysiloxane (a), wherein:
 - at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation.
- 93. An aqueous or aqueous-alcoholic lotion according to claim 92, said lotion being suitable for skin care or for hair care.
- 94. A gel, a milk, a cream, an emulsion, a thickened lotion or a mousse according to claim 92, wherein said gel, milk, cream, emulsion, thickened lotion or mousse is suitable to be applied to at least one keratin material chosen from skin, nails, eyelashes, lips and hair.
- 95. A detergent composition comprising a washing base according to claim 92, wherein said composition is chosen from shampoos, shower gels, bubble baths and make-up-removing products.
- 96. A detergent composition comprising a washing base according to claim 92, wherein said washing base comprises at least one surfactant chosen from anionic, amphoteric, nonionic and cationic surfactants.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Attorney Dockes 0. 05725.0785-00 Application No.: 09/692,716

97. A detergent composition according to claim 96, wherein said at least one surfactant is present in an amount effective to provide foaming power and detergent power.

98. A detergent composition comprising a washing base according to claim 96, wherein said washing base is present in an amount ranging from 4% to 50% by weight, relative to the total weight of the final composition.

99. A detergent composition comprising a washing base according to claim 98, wherein said washing base is present in an amount ranging from 6% to 35% by weight, relative to the total weight of the final composition.

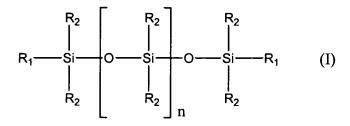
100. A detergent composition comprising a washing base according to claim 99, wherein said washing base is present in an amount ranging from 8% to 25% by weight, relative to the total weight of the final composition.

101. A process of washing or caring for a keratin material comprising applying to said keratin material a composition comprising, in a cosmetically acceptable medium, at least one non-cellulose thickener and at least one aqueous emulsion comprising at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10^6 to 100×10^6 cP, resulting from the addition reaction, in the presence of a catalyst, of:

- (a) at least one polysiloxane of formula (I):

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

Attorney Docket O. 05725.0785-00 Application No.: 09/692,716



in which:

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,
- n is an integer wherein said at least one polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1 x 10⁶ mm²/s; and
- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R₁ of said at least one polysiloxane (a), wherein:
 - at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation.
- 102. A process for treating a keratin material comprising applying to said keratin material a composition comprising, in a cosmetically acceptable medium, at least one non-cellulose thickener and at least one aqueous emulsion comprising at least one silicone copolymer with a dynamic viscosity ranging from

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER

1 x 10^6 to 100 x 10^6 cP, resulting from the addition reaction, in the presence of a catalyst, of:

- (a) at least one polysiloxane of formula (I):

in which:

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,
- n is an integer wherein said at least one polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1 x 10^6 mm²/s; and
- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R₁ of said at least one polysiloxane (a), wherein:
 - at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation, and optionally rinsing said composition out with water.

FINNEGAN HENDERSON FARABOW GARRETT &

- 103. A process for washing or treating a keratin material according to claim 102, wherein said keratin material is chosen from hair, skin, eyelashes, eyebrows, nails, lips and scalp.
- 104. A process for manufacturing a cosmetic product comprising including in said product at least one non-cellulose thickener and at least one aqueous emulsion comprising at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10^6 to 100×10^6 cP, resulting from the addition reaction, in the presence of a catalyst, of:
 - (a) at least one polysiloxane of formula (I):

$$\begin{array}{c|c}
R_1 & R_2 & R_2 \\
R_1 & S_1 & O & S_1 \\
R_2 & R_2 & R_2
\end{array}$$

$$\begin{array}{c|c}
R_2 & R_2 \\
R_2 & R_2 \\
R_2 & R_2
\end{array}$$

$$\begin{array}{c|c}
R_2 & R_2 \\
R_2 & R_2
\end{array}$$

$$\begin{array}{c|c}
R_2 & R_2 \\
R_2 & R_2
\end{array}$$

in which:

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,
- n is an integer wherein said at least one polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1 x 10^6 mm²/s; and

FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLL

- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R_1 of said at least one polysiloxane (a), wherein:
 - at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LP